

BP

RANKINE CYCLE OIL RETURN SYSTEM

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Abstract

PURPOSE: To eliminate the oil returning oil pump by temporarily storing the lubricant in an oil tank, when returning the lubricant separated from low pressure gas to an expander, then returning by means of high pressure gas.

CONSTITUTION: In Rankine cycle, high pressure liquid medium pressurized by a liquid pump 5 is evaporated in a boiler 1 to produce high pressure gas which is adiabatically expanded in an expander 2A to produce mechanical power while low pressure gas is fed to an oil separator 3 to separate lubricant then condensed and returned to the liquid pump 5. Here the expander 2A is provided with an oil return port 11 conducted to the inner intermediate pressure port. An oil tank 14 is coupled to the bottom of the oil separator 3 to feed the lubricant in the oil tank 14 to the oil return port 11 through a piping 16 by high pressure gas to be fed through a piping 15 when the output from a level meter 21 will open a solenoid valve 17 if the oil face exceeds over predetermined level.

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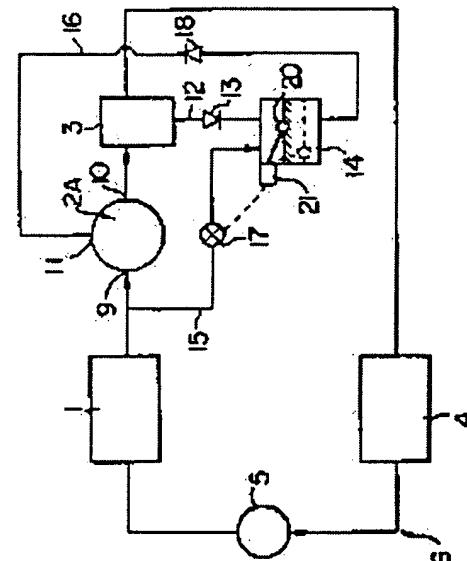
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